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Flood Boundary and Floodway Map Index

Flood Boundary and Floodway Map

PUBLISHED SEPARATELY:

Flood Insurance Rate Map Index

Flood Insurance Rate Map

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FLOOD INSURANCE STUDY

CITY OF SELMA,
DALLAS COUNTY,
ALABAMA

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the City of Selma, Dallas County, Alabama, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates and assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the state (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by Law Engineering Testing Company under a subcontract with Lowe Engineers, Inc. (the Study Contractor) for the Federal Emergency Management Agency (FEMA), under Contract No. EMW-C-0725. This study was completed in November 1982.

1.3 Coordination

Streams requiring detailed study were identified at a May 1979 meeting attended by representatives of the Study Contractor, FEMA, and the City of Selma.

Contact was maintained during the course of this study with the U.S. Army Corps of Engineers (COE), Mobile District, the U.S. Geological Survey (USGS), the U.S. Soil Conservation Service (SCS), and local city officials.

On November 14, 1984, the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the Study Contractor, FEMA, and the community.

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2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the City of Selma, Dallas County, Alabama. The area of study is shown on the Vicinity Map (Figure 1).

Flooding caused by overflow of the Alabama River within the corporate limits was studied in detail. Beech Creek, Valley Creek, and Jones Creek were also studied in detail from their mouth upstream to the corporate limits.

The areas studied were selected with priority given to all known flood hazard areas and areas of projected development or proposed construction through November 1987. The scope and methods of study were proposed to and agreed upon by FEMA and the City of Selma.

2.2 Community Description

The City of Selma, which is the county seat, is surrounded by the unincorporated areas of Dallas County. The city has an incorporated area of 14 square miles (Reference 1). The economy of Selma is largely based on commercial and industrial activity and benefits from its close proximity with the Alabama River, U.S. Highway 80, the Norfolk Southern Railway, and the Louisville & Nashville Railroad. The 1980 population of Selma was reported to be 26,684 (Reference 2).

The City of Selma is a historic community with its roots going back to the Indian Village of Piachee. Desoto and Chief Tuskaloosa supposedly met in this village. In 1815, the community was named Moore's Bluff. In 1820, the community became the incorporated city of Selma. Selma was the main military manufacturing center for the South during the Civil War until it was captured in 1865. The most recent historic event in Selma occurred with the Civil Rights movement during the 1960s.

Selma is in the Black Belt region of the Southern Coastal Plain, which is characterized by gently rolling topography and black, fertile soils. All drainage from Selma is to the Alabama River and its tributaries. Extensive development has occurred in the Alabama River floodplain, which is heavily used.

Selma enjoys a warm climate with an average annual temperature of 66.5 degrees Fahrenheit. It receives an average annual rainfall of 51.54 inches (Reference 3).

2.3 Principal Flood Problems

The Alabama River is the main source of flooding in the Selma area. The worst flood on record (approximately the 100-year flood) occurred during March 1961 when floodwaters from the Alabama River covered a large area of Selma causing extensive damage to commercial and private properties. Due to the flat topography of the area, there are additional problems with ponding and drainage and with streams frequently overflowing their banks.

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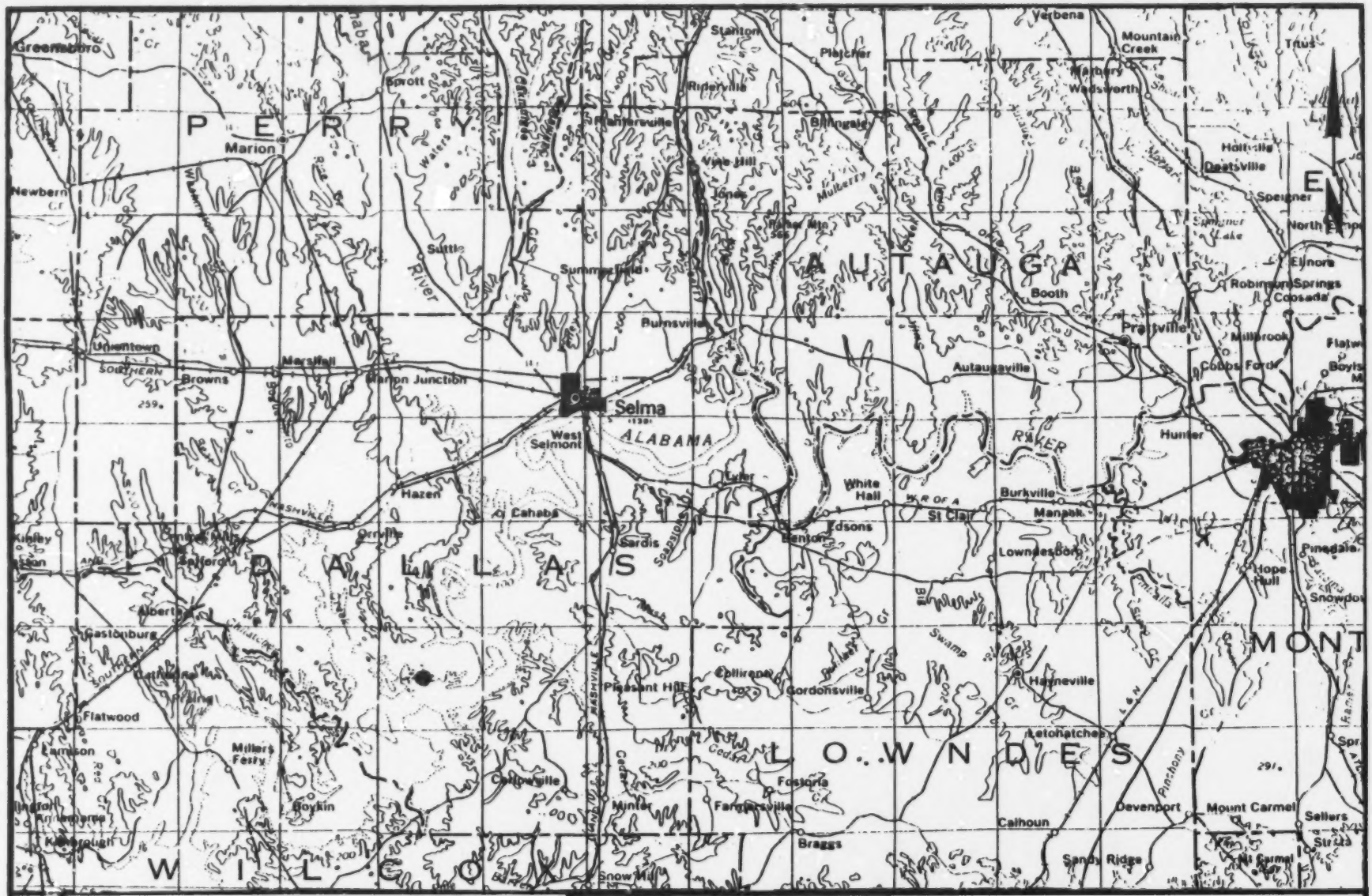
PERRY
DALLAS
AUTAUGA
LOWNDES
WILCOX
Selma
Marion
Greensboro
Uniontown
Browns
Marion Junction
Burnsville
Autaugaville
Prattville
Millbrook
Coosa Ford
Robinson Springs
Coosada
Elmore
Summerfield
Suttle
River
Alabama River
West Selmont
Hazen
Cahaba
Orrville
Sardis
Edsons
Lenton
White Hall
Burkville
Manack
Hunter
Lowndesboro
Hope Hull
Pinedale
Snowdoun
Gastonburg
Albert
Flatwood
Larrison
Millers Ferry
Boykin
Pleasant Hill
Gordonsville
Hayneville
Letohatchee
Calhoun
Devenport
Mount Carmel
Sellers
Braggs
Sandy Ridge
Mt Carmel
Snow Hill
Stanton
Verbena
Mountain Creek
Thtus
Ramsay
Wadsworth
Holtville
Deatsville
Speigner
Booth
Pinetucky
Swamp
Cedar
Fosters Cr
Farmersville
Calhoun
Mulberry
Jones
Vine Hill
Rifleville
Fletcherville
Billingsley
Newbern
Spott
Waters
Suttle
Summerfield
Burnsville
Marshall
Southern
Hazen
Orrville
Sardis
Edsons
Lenton
White Hall
Burkville
Manack
Lowndesboro
Pleasant Hill
Gordonsville
Hayneville
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Calhoun
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Mount Carmel
Sellers
Braggs
Sandy Ridge
Snow Hill
Flatwood
Larrison
Millers Ferry
Boykin
Gastonburg
Albert
Kimbley
Selford
Orrville
Hazen
Cahaba
Marion Junction
Browns
Uniontown
Newbern
Greensboro
Stanton
Verbena
Mountain Creek
Thtus
Holtville
Deatsville
Speigner
Booth
Prattville
Millbrook
Coosa Ford
Robinson Springs
Coosada
Elmore
Autaugaville
Hunter
Burkville
Manack
Lowndesboro
Hope Hull
Pinedale
Snowdoun
Hayneville
Letohatchee
Calhoun
Devenport
Mount Carmel
Sellers
Braggs
Sandy Ridge
Mt Carmel
Snow Hill
Pleasant Hill
Gordonsville

2.4 Flood Protection Measures

The only flood protection measures affecting Selma are the series of dams located on the Alabama River. These dams have little storage capacity and, consequently, have little impact on large floods.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10, 2, 1, and 0.2 percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1 percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each riverine flooding source studied in detail affecting the community.

Equations have been developed by Olin and Bingham (Reference 4) for estimating peak flows for the 10-, 50-, and 100-year floods on natural streams in Alabama. These flows were used on streams with drainage areas of 1 - 15 square miles. Flood-frequency relationships developed by Hains were used when the drainage area was between 25 and 300 square miles (Reference 5). When the watersheds were between 15 and 25 square miles, peak flows were computed by combining the two methods using a weighted average based on drainage area. The 500-year flows were determined by extrapolating the 10-, 50-, and 100-year peak flows using a least squares fit.

Flows for the Alabama River were obtained from a frequency analysis performed by the USGS on over 50 years of data collected at the Selma gage. These flows confirmed the flows obtaind by the above method.

The Sauer Method (Reference 6) was used to adjust the natural flows to account for the effects of urbanization. This method relates the peak discharge for any return interval to the percentage of impervious area in the watershed and the average rainfall intensity ratio of the 10-, 50-, and 100-year storms to the 2-year storm.

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Land use for each watershed was determined from aerial photographs (Reference 7), USGS quadrangles (Reference 8), and field inspection. The percent impervious area for any given residential or commercial land use was obtained from the SCS, Technical Release No. 55 (Reference 9).

Peak discharges for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
ALABAMA RIVER					
at US Highway 80	17,100	182,000	231,000	252,000	299,000
BEECH CREEK					
at mouth	63.2	4,910	8,150	9,790	12,730
at County Highway 80	60.8	4,820	7,990	9,590	12,470
JONES CREEK					
at mouth	4.5	1,070	1,740	2,070	2,680
VALLEY CREEK					
at mouth	68.0	4,890	8,230	9,910	12,940
at West Dallas Avenue	63.4	4,170	7,030	8,470	11,050

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

Cross sections for the backwater analyses of Beech, Valley, and Jones Creeks were obtained from the negatives of aerial photographs taken in March 1980 at a scale of 1:9600 (Reference 7). The below-water sections were obtained by field measurement. Cross sections for the Alabama River were obtained from the USGS in Montgomery. All bridges, dams, and culverts were field checked to obtain elevation data and structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which a floodway was computed (Section 4.2), selected cross-section locations are also shown on the Flood Boundary and Floodway Map.

Channel roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and based on field observations of the streams and floodplain areas. Roughness values used for the streams ranged from 0.035 - 0.06 for the channel and 0.04 - 0.15 for the overbank areas, with higher values being used for ineffective flow areas.

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Water-surface elevations for floods of the selected recurrence intervals were computed through use of the COE HEC-2 step-backwater computer program (Reference 10). Flood profiles were drawn showing computed water-surface elevations for floods of the selected recurrence intervals. The starting water-surface elevations for Beech, Valley, and Jones Creeks were calculated using the slope-area method. The starting water-surface elevation for the Alabama River was taken from a known water-surface elevation based on a derived stage-discharge relationship.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 50- and 100-year flood elevations are close together, due to limitations of the profile scale, only the 100-year profile has been drawn.

The hydraulic analyses for this study are based only on the effects of unobstructed flow. The flood elevations shown on the profiles are, thus, considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the National Geodetic Vertical Datum of 1929. Elevation reference marks used in this study are shown on the maps.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound floodplain management programs. Therefore, each Flood Insurance Study produces maps designed to assist communities in developing floodplain management measures.

4.1 Flood Boundaries

To provide a national standard without regional discrimination, the 1 percent annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2 percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:6000 with a contour interval of 4 feet (Reference 11).

The 100- and 500-year floodplain boundaries are shown on the Flood Boundary and Floodway Map. In cases where the 100- and 500-year floodplain boundaries are close together, only the 100-year floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces the flood-carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For

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purposes of the National Flood Insurance Program, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 100-year floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced.

The floodways presented in this study were computed on the basis of equal conveyance reduction from each side of the floodplain. The results of these computations were tabulated at selected cross sections for each stream segment for which a floodway was computed and are presented in Table 2, Floodway Data.

As shown on the Flood Boundary and Floodway Map, the floodway boundaries were computed at cross sections. Between cross sections, the boundaries were interpolated. In cases where the floodway and the 100-year floodplain boundaries are either close together or collinear, only the floodway boundary has been shown. Portions of the floodway of the Alabama River and Beech Creek lie outside the corporate limits.

The area between the floodway and the 100-year floodplain boundaries is termed the floodway fringe. The floodway fringe thus encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 2.

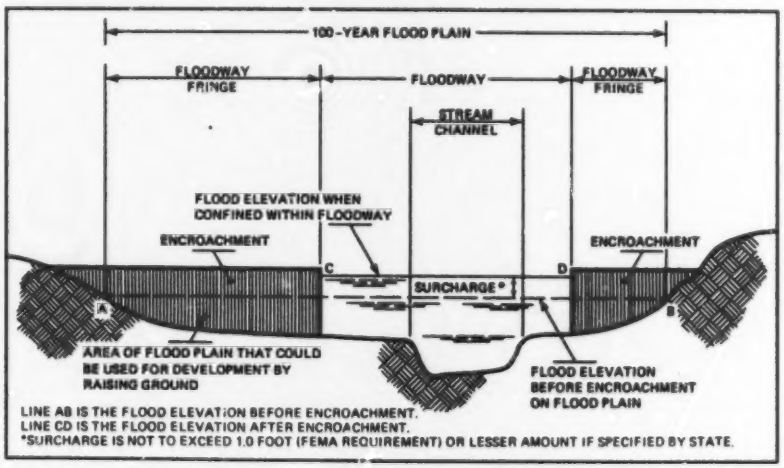
100-YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE*
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE AB IS THE FLOOD ELEVATION BEFORE ENCROACHMENT.
LINE CD IS THE FLOOD ELEVATION AFTER ENCROACHMENT.
*SURCHARGE IS NOT TO EXCEED 1.0 FOOT (FEMA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE.

FIGURE 2 - Floodway Schematic

The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
ALABAMA RIVER								
A	214.75[1]	1194	41,427	6.1	119.4	119.4	120.3	0.9
B	215.23[1]	1775	55,300	4.6	120.6	120.6	121.4	0.8
BEECH CREEK								
A	0.47[1]	128[3]	1533	6.4	121.2	87.9[4]	88.8	0.9
B	0.84[1]	64[3]	926	10.4	121.2	92.9[4]	93.7	0.8
C	1.42[1]	286[3]	3303	2.9	121.2	101.8[4]	102.8	1.0
JONES CREEK								
A	5000[2]	83	420	4.9	117.9	95.2[4]	95.2	0.0
B	6270[2]	85	389	5.3	117.9	97.5[4]	97.5	0.0
C	6660[2]	108	667	3.1	117.9	100.5[4]	100.5	0.0

[1]MILES ABOVE MOUTH
[2]FEET ABOVE MOUTH
[3]THIS WIDTH EXTENDS BEYOND CORPORATE LIMITS
[4]ELEVATION WITHOUT CONSIDERING BACKWATER EFFECT FROM ALABAMA RIVER

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL

(DALLAS CO.)

FLOODWAY DATA

ALABAMA RIVER—BEECH CREEK—JONES CREEK

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
					(FEET NGVD)			
Jones Creek								
D	8,010	44	228	9.1	117.9	102.5[2]	102.6	0.1
E	8,320	49	349	5.9	117.9	105.1[2]	105.1	0.0
F	8,880	52	287	7.2	117.9	107.0[2]	107.2	0.2
G	9,160	144	1,882	1.1	117.9	117.5[2]	118.5	1.0
H	10,530	138	1,184	1.7	117.9	117.6[2]	118.6	1.0
I	10,780	157	1,510	1.4	118.8	118.8	119.8	1.0
J	12,240	166	1,721	1.2	119.1	119.1	120.1	1.0
K	13,330	37	323	6.4	119.3	119.3	120.2	0.9
L	13,450	38	427	4.8	122.1	122.1	123.0	0.9
M	16,540	86	711	2.9	128.5	128.5	129.5	1.0
Valley Creek								
A	3,650	274	2,243	4.4	117.9	96.5[2]	97.5	1.0
B	4,760	154	1,820	5.4	117.9	98.7[2]	99.5	0.8
C	5,230	161	2,050	4.8	117.9	99.8[2]	100.5	0.7
D	7,150	133	1,635	5.2	117.9	102.3[2]	103.1	0.8
E	8,920	250	2,533	3.3	117.9	104.1[2]	105.0	0.9
F	9,490	234	2,382	3.6	117.9	104.4[2]	105.3	0.9
G	9,980	58	1,135	7.5	117.9	104.4[2]	105.3	0.9
H	10,625	389	7,741	1.1	117.9	105.8[2]	106.7	0.9
I	11,505	75	912	9.3	117.9	106.1[2]	106.8	0.7

1 Feet above mouth
2 Elevation without considering backwater effect from Alabama River

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL

(DALLAS CO.)

FLOODWAY DATA

JONES CREEK—VALLEY CREEK

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
					(FEET NGVD)			
Valley Creek								
J	14,325	74	1,284	6.6	117.9	110.9[2]	111.3	0.4
K	18,895	74	1,333	6.4	117.9	115.0[2]	115.3	0.3
L	21,020	77	1,309	6.5	117.9	117.1[2]	117.3	0.2
M	21,280	79	1,351	6.3	117.9	117.6[2]	117.8	0.2
N	25,135	56	1,153	7.3	121.5	121.5	121.7	0.2
O	30,015	69	1,191	7.1	126.1	126.1	126.3	0.2

1 Feet above mouth
2 Elevation without considering backwater effect from Alabama River

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL

(DALLAS CO.)

FLOODWAY DATA

VALLEY CREEK

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5.0 INSURANCE APPLICATION

To establish actuarial insurance rates, data from the engineering study must be transformed into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors, and flood insurance zone designations for each flooding source studied in detail affecting the City of Selma.

5.1 Reach Determinations

Reaches are defined as sections of floodplain that have relatively the same flood hazard, based on the weighted average difference in water-surface elevations between the 10- and 100-year floods. This difference may not have a variation greater than that indicated in the following table for more than 20 percent of the reach:

Average Difference Between 10- and 100-year Floods	Variation
Less than 2 feet	0.5 foot
2 to 7 feet	1.0 foot
7.1 to 12 feet	2.0 feet
More than 12 feet	3.0 feet

The locations of the reaches determined for the riverine flooding sources of the City of Selma are shown on the Flood Profiles and are summarized in Table 3, Flood Insurance Zone Data.

5.2 Flood Hazard Factors

The Flood Hazard Factor (FHF) is used to establish relationships between depth and frequency of flooding in any reach. This relationship is then used with depth-damage relationships for various classes of structures to establish actuarial insurance rate tables.

The FHF for a riverine reach is the weighted average difference between the 10- and 100-year flood water-surface elevations rounded to the nearest 0.5 foot, multiplied by 10, and shown as a 3-digit code. For example, if the difference between elevations is 0.7 foot, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference is greater than 10.0 feet, it is rounded to the nearest whole foot.

5.3 Flood Insurance Zones

Flood insurance zones and zone numbers are assigned based on the type of flood hazard and the FHF, respectively. A unique zone number is associated with each possible FHF and varies from 1 for a FHF of 005 to a maximum of 30 for a FHF of 200 or greater.

Zone A6, 13, 14: Special Flood Hazard Areas inundated by the 100-year flood, with base flood elevations shown, and zones subdivided according to FHFs.

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Zone B: Areas between the Special Flood Hazard Areas and the limits of the 500-year flood; areas that are protected from the 100- and 500-year floods by dike, levee, or other water control structure; areas subject to certain types of 100-year shallow flooding where depths are less than 1.0 foot; and, areas subject to 100-year flooding from sources with drainage areas less than 1 square mile. Zone B is not subdivided.

Zone C: Areas of minimal flooding; not subdivided.

Flood elevation differences, FHFs, flood insurance zones, and base flood elevations for each flooding source studied in detail in the community are shown in Table 3, Flood Insurance Zone Data.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the City of Selma is, for insurance purposes, the principal product of the Flood Insurance Study. This map contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevation lines for riverine flooding sources show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. The base flood elevations and zone numbers are used by insurance agents, in conjunction with structure elevations and characteristics, to assign actuarial insurance rates to structures and contents insured under the National Flood Insurance Program.

6.0 OTHER STUDIES

A Flood Insurance Study is in progress for the Unincorporated Areas of Dallas County (Reference 12) and the results are in agreement with this study.

Due to its more detailed analysis, this Flood Insurance Study supersedes the previously printed Flood Hazard Boundary Map for the City of Selma (Reference 13).

7.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, Federal Emergency Management Agency, 1371 Peachtree Street, NE., Suite 736, Atlanta, Georgia, 30309.

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FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION (FEET NGVD)[3]
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
Alabama River Reach 1	0003, 0004	-6.5	-1.7	3.5	065	A13	Varies
Jones Creek Reach 1	0001, 0002, 0004	-3.0	-1.2	2.1	030	A6	Varies
Valley Creek Reach 1	0002, 0004	-6.9	-2.0	3.2	070	A14	Varies

[1]Flood Insurance Rate Map Panel [2]Weighted Average [3]Rounded to Nearest Foot

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL

(DALLAS CO.)

FLOOD INSURANCE ZONE DATA

ALABAMA RIVER--JONES CREEK--VALLEY CREEK

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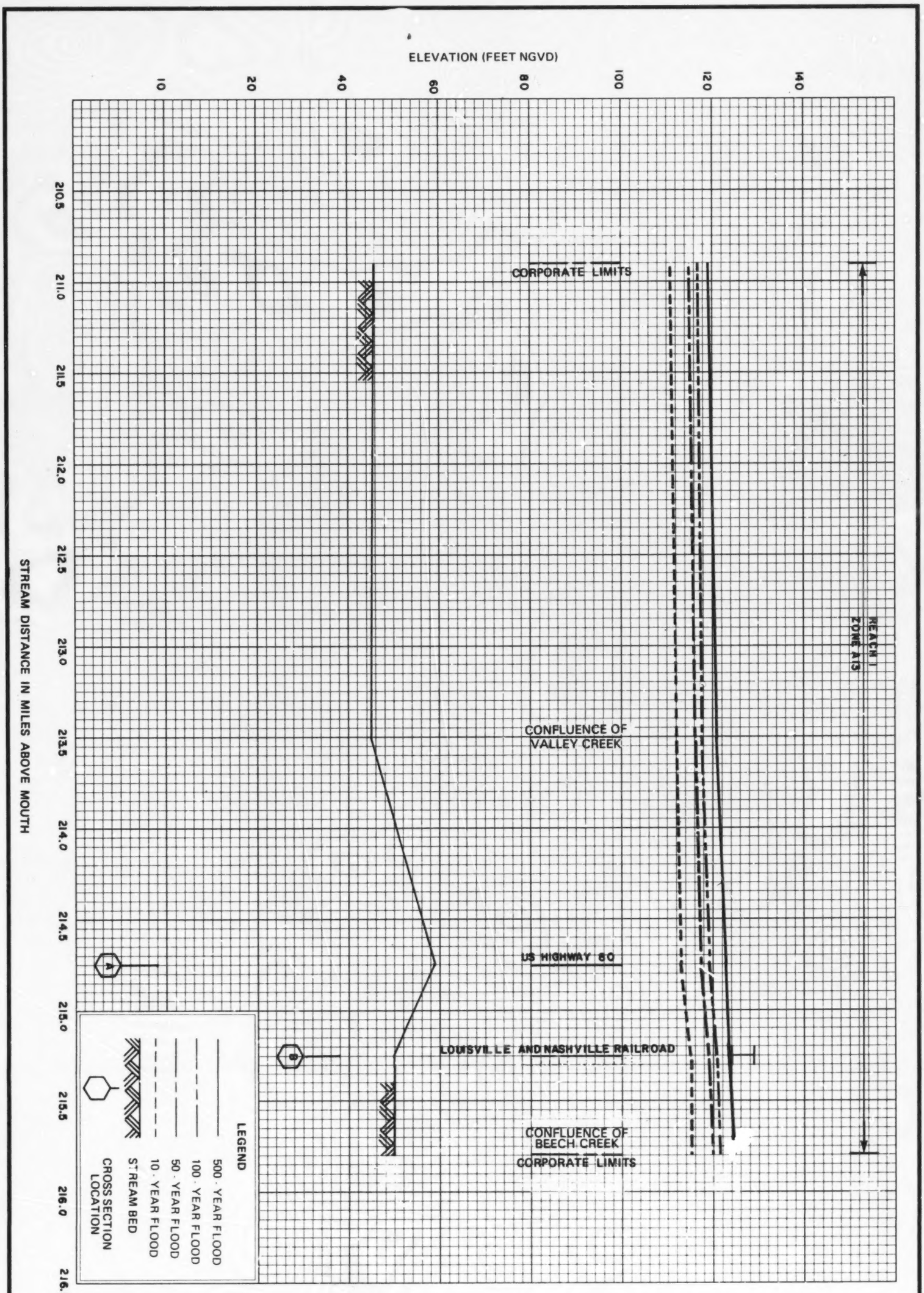

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FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL

(DALLAS CO.)

FLOOD PROFILES

ALABAMA RIVER

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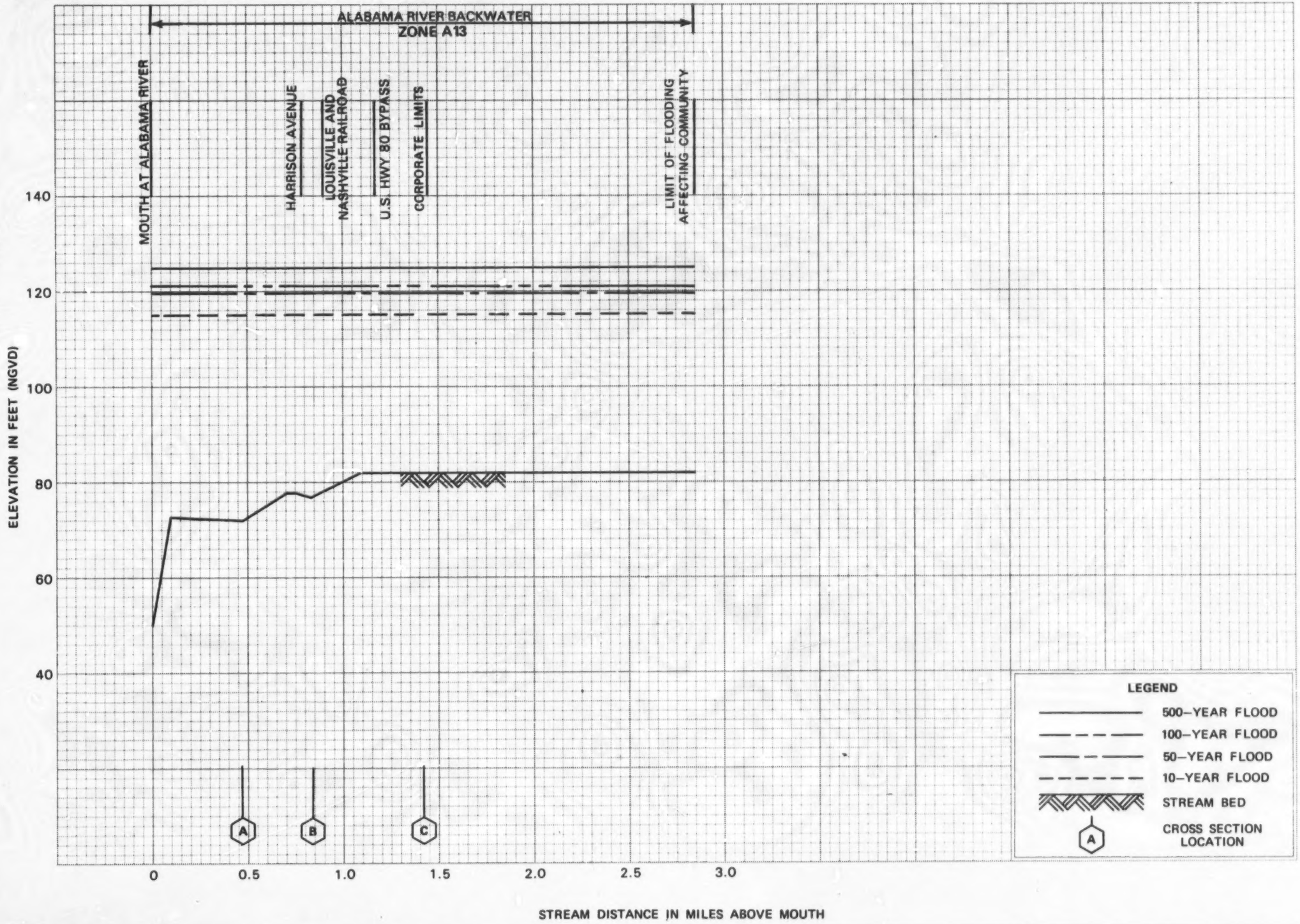

FLOOD PROFILES

BEECH CREEK

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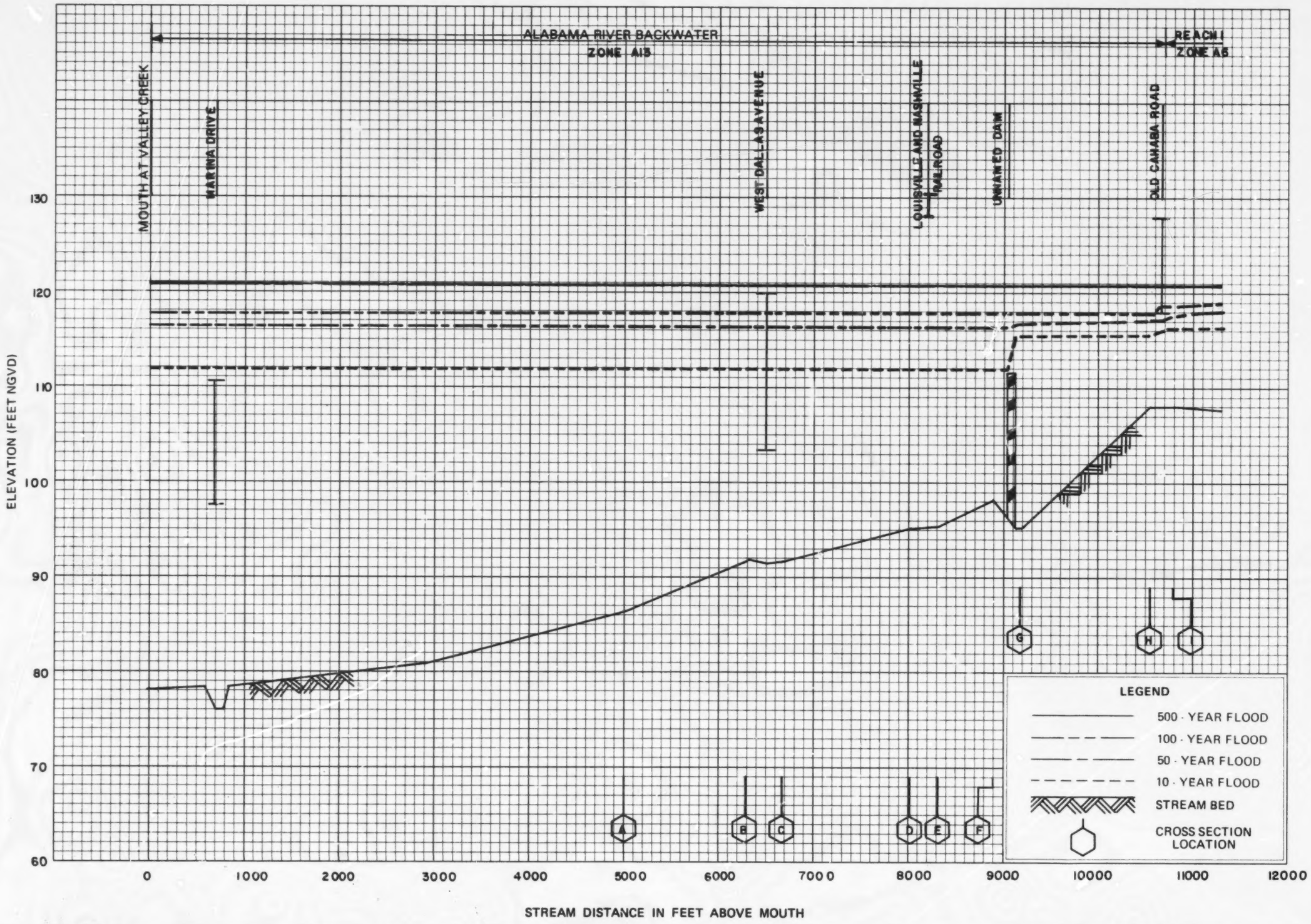

FLOOD PROFILES

JONES CREEK

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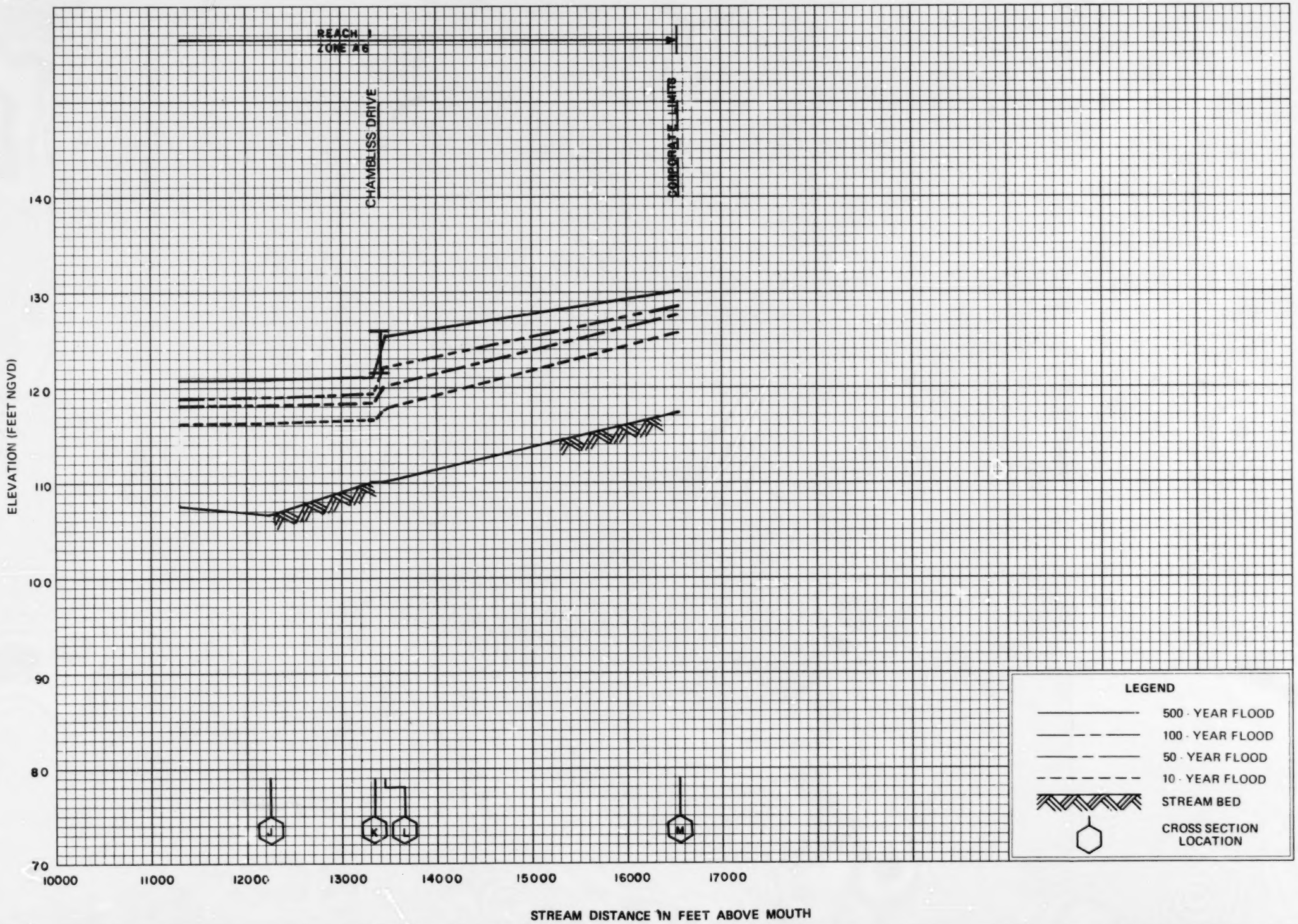

FLOOD PROFILES

JONES CREEK

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CITY OF SELMA, AL
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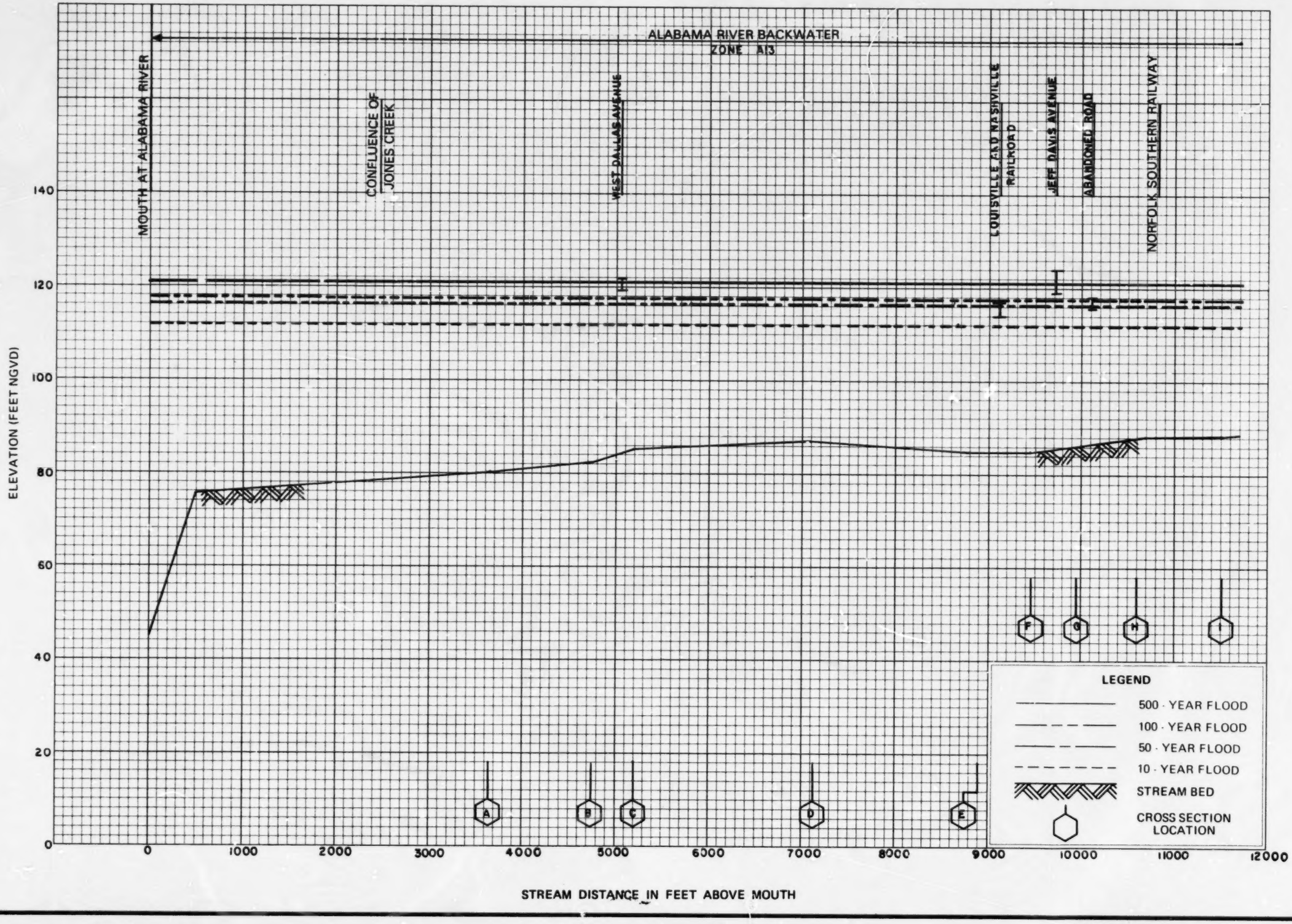

FLOOD PROFILES

VALLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL
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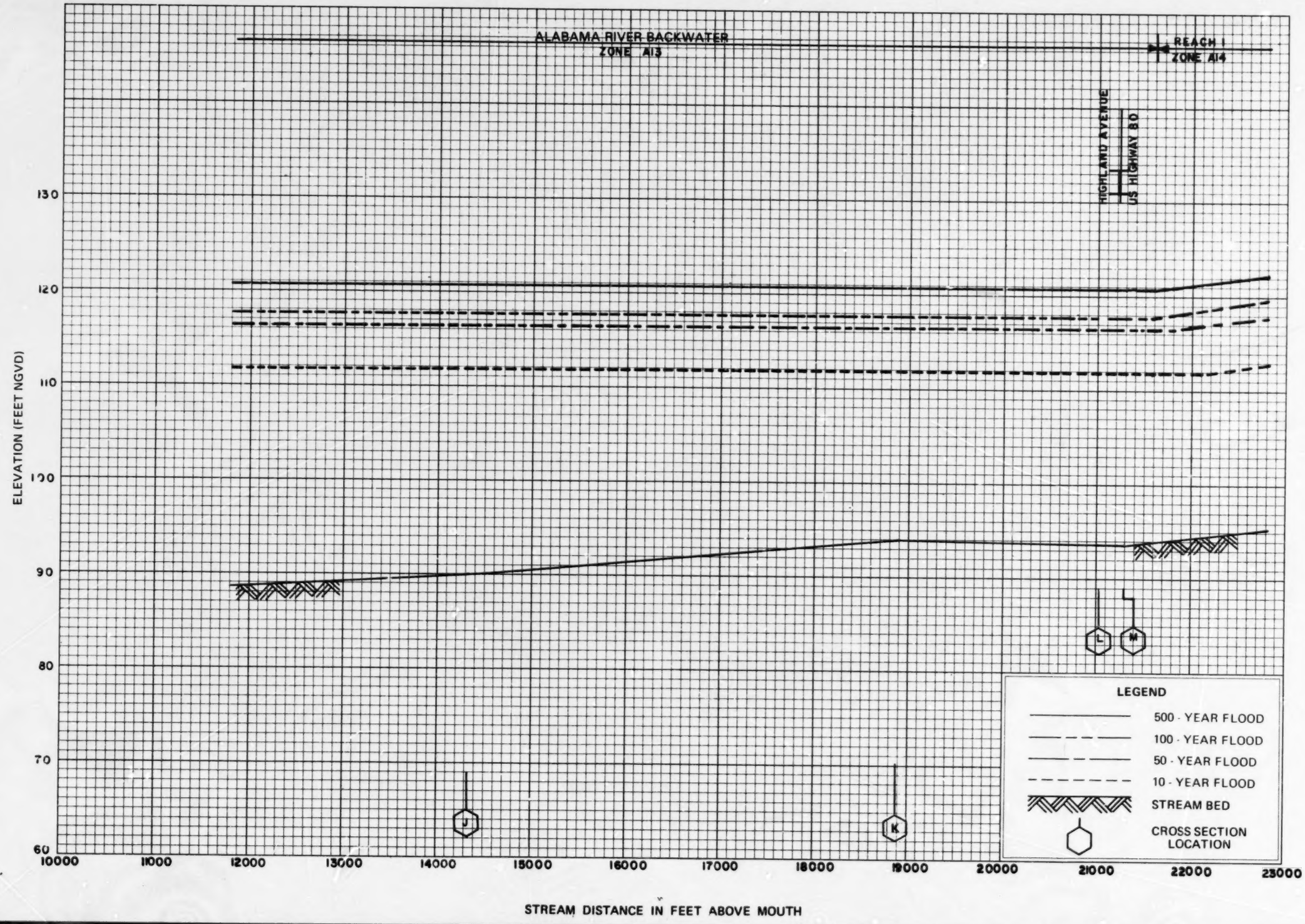

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VALLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL
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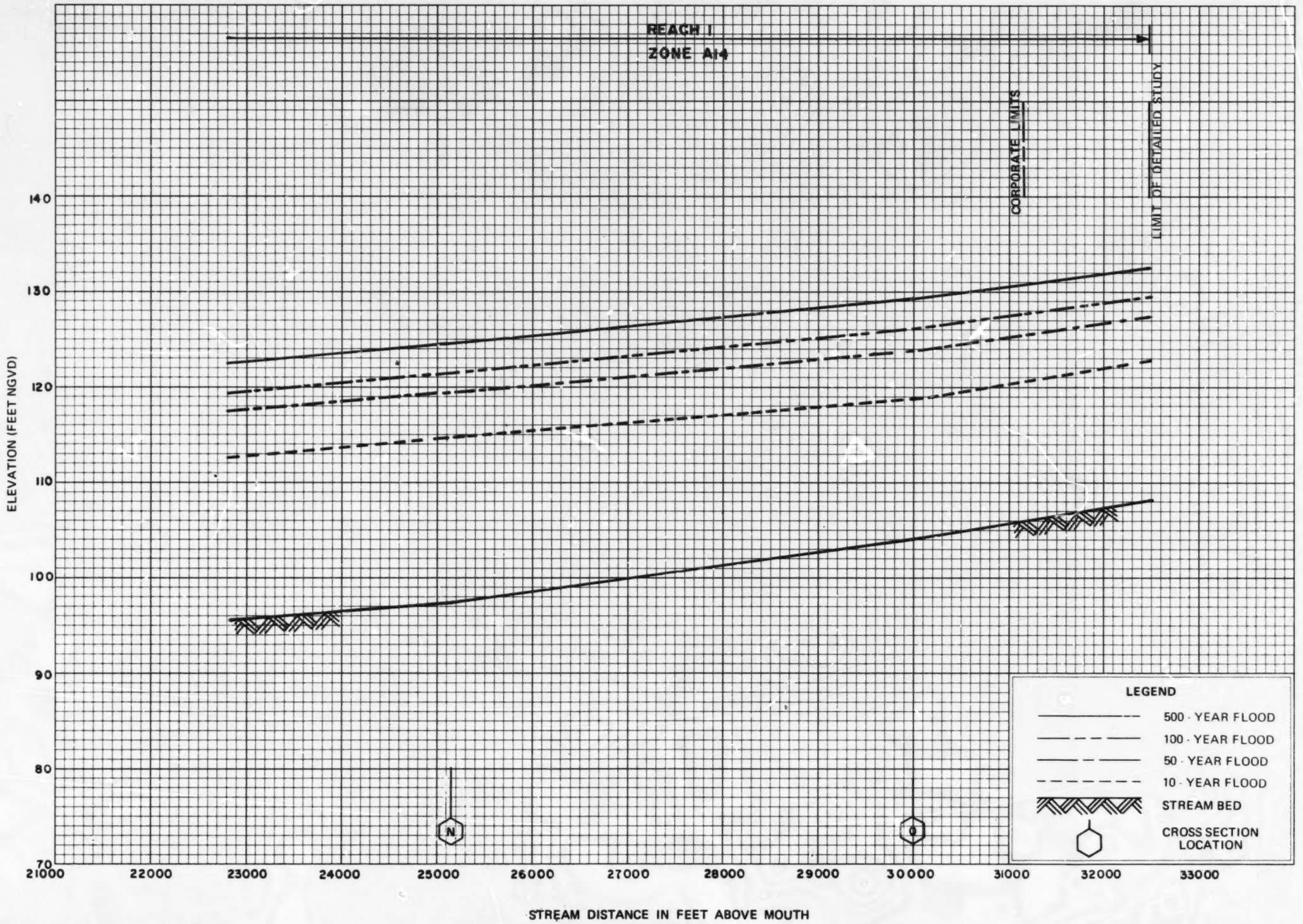

FLOOD PROFILES

VALLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF SELMA, AL
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